

Technical Notes: Child Deaths in North Carolina, 2018

The data presented in the report are derived from death certificates filed with the North Carolina Vital Records office for North Carolina resident children ages 0 through 17 who died in 2018. Numbers in this report may differ slightly from numbers reported later by the Office of the Chief Medical Examiner (OCME). The State Center for Health Statistics (SCHS) bases its statistics on death certificate coding only and closes out annual data at a specific point in time. The OCME makes its determinations utilizing a variety of information sources when conducting its death reviews, does not close out its data, and some of its cases are still pending when SCHS closes their annual mortality data files. Therefore, the cause and manner of death determined by the OCME may be modified based on OCME review after the period during which the SCHS finalizes annual mortality data files.

Figure 1. 1991-2018 Trends in North Carolina Resident Child Death Rates Ages Birth Through 17 Years

This graph shows the overall child death rates since the Child Fatality Task Force was created in 1991. Death rates prior to 2018 have been recalculated using the latest population estimates available.

Figure 2. 2009-2018 Trends in North Carolina Resident Child Death Rates by Age Group

The graph presenting trends in child death rates by age group displays rates for the ten-year period 2009-2018. Rates are displayed for all child deaths ages 0 through 17, ages 1 through 17 (excluding infants), as well as four age groups: 1 to 4, 5 to 9, 10 to 14, and 15 to 17. Rates are presented per 100,000 resident children in that age group. Death rates prior to 2018 have been recalculated using the latest population estimates available.

Table 1. 2018 NC Resident Child Deaths by Age Group & Cause of Death

Cause of death categories are allocated into five age groups: Infants, 1-4, 5-9, 10-14, and 15-17. The Infant category includes all children who die within 365 days of their date of birth. The number and percentage of deaths for each cause category are presented by age group.

Other Unintentional Injuries Subcategories

Note that the total number of other unintentional injuries is divided into seven subcategories: *suffocation/choking/strangulation, drowning, poisoning, bicycle, firearm, smoke/fire/flames, and all other accidental injuries*. Subcategories are based on the most frequently occurring causes of death within the unintentional injury grouping.

Subcategory figures are not included in the overall totals since they are included in the broad *Other Unintentional Injuries* category.

All Other Causes of Death Category

This grouping includes deaths which cannot be categorized into any of the major cause of child death categories due to a small number of deaths.

Note regarding Trends in Causes of Child Death

Since 1999, causes of death have been under the International Classification of Diseases-Tenth Revision (ICD-10) coding system. Coding for 1998 and earlier years were coded under the ICD-9 coding system. *Consequently, caution should be exercised in comparing cause-specific deaths prior to 1999 with causes occurring from 1999 forward because the coding systems were not comparable.* As a result, changes in the rates for specific causes of death from 1998 to 2018 may reflect changes in the coding system rather than epidemiological causes.

Figure 3. 2009-2018 Trends in North Carolina Resident Child Death Rates by Race/Ethnicity, Ages Birth Through 17 Years

This graph presents trends in child death rates by race/ethnicity from 2009-2018. All racial/ethnic groups presented are mutually exclusive categories. Rates are presented

per 100,000 child population (ages 0-17) in that racial/ethnic group. Death rates prior to 2018 have been recalculated using the latest population estimates available.

Figure 4. 2009-2018 Trends in North Carolina Resident Child Death Rates for Selected Causes of Death, Ages Birth Through 17 Years

The graph presenting trends in child death rates by cause of death displays rates for the ten-year period 2009-2018. Rates are displayed for major cause of death categories; per 100,000 resident children (ages 0-17). When reviewing this graph, it is important to keep in mind that certain cause categories such as birth defects, perinatal conditions, and suicides occur more frequently in specific age groups. Therefore, rates presented here may underestimate age-specific cause of death rates for these categories.

Table 2. Leading Causes of Child Death by Age Group, NC Residents 2018

These tables tabulate leading causes of death for children ages 0 through 17 using National Center for Health Statistics (NCHS) leading cause of death classifications. Figures here may differ slightly from categories presented in Table 1 due to the use of NCHS leading causes of death classification standards.

Table 3. 2014-2018 North Carolina Resident Child Deaths: Ages 0-17 and Ages 1-17

This table reports death numbers and rates for ages 0 to 17 and 1 to 17 by Perinatal Care Region and county of residence. Rates that are based on fewer than 10 deaths are statistically unstable and should be interpreted with caution. Unstable rates are identified with an asterisk.

2018 NC Resident Child Death Rate Maps by Region

These maps present 2018 NC resident child death rates by Perinatal Care Region. Maps include death rates for children ages 0 to 17, ages 1 to 17, and infant mortality rates.

2018 North Carolina Resident Infant and Child Deaths

This table presents the number of child deaths by county, time period, age group, and cause of death category. Figures for 2014-2018 and 2018 are displayed. Age groups include infants (under age 1), ages 1 to 4, ages 5 to 9, ages 10 to 14, and ages 15 to 17.

North Carolina Population Data

Denominators for all child death rates presented in this report are derived from population estimates supplied by the National Center for Health Statistics (NCHS) and prepared under a collaborative arrangement with the U.S. Census Bureau. Bridged population estimates are updated after every Census (known as Intercensal files) and post-Census years are updated annually (known as Postcensal files). Intercensal Bridged estimates files were used for rates from 1991-2009. Denominators for 2010 estimates were derived from the 2010 Bridged Census file. 2011-2018 rates were based on 2018 Vintage Postcensal Bridged estimates.

Death rates prior to 2018 have been recalculated using the latest available population estimates. As a result, rates presented in this report may differ slightly from prior reports based on earlier population estimates.

Produced by the N.C. Division Public Health - Women's and Children's Health Section
in conjunction with the State Center for Health Statistics